

REMARKS

Applicants and the undersigned are most grateful for the time and effort accorded the instant application by the Examiner.

Claims 1-5 were pending in the instant application at the time of the outstanding Office Action. Claims 3 and 4 have been amended to correct typographical errors and are not intended to change the scope of the claims.

The Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks.

Claim Rejection under 35 U.S.C. § 102(b) and (e)

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) and (e) as being anticipated by Womelsdorf et al. (WO 00/50503) as translated by Womelsdorf et al. (U.S. Patent No. 6,710,091) (hereinafter "Womelsdorf").

As best understood, Womelsdorf appears to relate to "A method for the preparation of nano size zinc oxide particles having an average primary particle diameter of less than or equal to 15 nm, which are redispersible in organic solvents and/or water, by basic hydrolysis of at least one zinc compound in alcohol or an alcohol/water mixture." (Abstract)

In contrast to Womelsdorf stands the present invention, which in at least one embodiment relates to "[w]ater- and halogen-free dispersions which comprise

aminoalcohols and zinc oxide in primary-particle-redispersed form.... The dispersions according to the invention consist of the zinc oxide particles in primary-particle-redispersed form and also the water- and halogen-free dispersion medium." (Page 2) Thus unlike Womelsdorf, in which the dispersions contain water, the present invention is water free.

The novel water free dispersion aspect of the presently claimed invention, which among other things allows for stable prolonged storage, is clearly set forth in the independent claims. Claim 1 presently recites, "**A water- and halogen-free dispersion comprising zinc oxide particles in primary-particle-redispersed form having a diameter of between 1 and 200 nm, and aminoalcohols.**" (Emphasis added) Similarly, claim 3 recites, "**A process for preparing a water- and halogen-free zinc oxide dispersion comprising adding zinc oxide particles in primary-particle-redispersible form, with stirring, to aminoalcohols or aminoalcohol-containing, anhydrous organic solvents.**" (Emphasis added) Womelsdorf fails to teach or suggest a water- and halogen-free zinc oxide dispersion as claimed in the independent claims. As clearly set forth in the Womelsdorf reference, "The invention therefore relates to zinc oxide gels comprising nanosize zinc oxide particles having an average primary particle diameter of .Itoreq. 15 nm, water and alcohol, which are redispersible in at least one organic solvent and/or water...." (Col. 3, Lines 5-7) Accordingly, Applicants respectfully submit that the applied art does not anticipate the present invention because, at the very least, "[a]nticipation requires the disclosure in a single prior art reference of each element of

the claim under construction." *W.L. Gore & Associates, Inc. v. Garlock*, 721 F.2d 1540, 1554 (Fed. Cir. 1983); see also *In re Marshall*, 198 U.S.P.Q. 344, 346 (C.C.P.A. 1978).

Claim Rejection under 35 U.S.C. § 103(a)

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Womelsdorf. In addition, claim 4 also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Womelsdorf in view of Takeda et al. (U.S. Patent No. 6,200,680)(hereinafter "Takeda"). The Applicants' respectfully disagree with the rejections for the following reasons and therefore request the same be withdrawn.

As the Examiner is aware, to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 there must be: (1) a suggestion or motivation to modify a reference or combine references; (2) a reasonable expectation of success in making the modification or combination; and (3) a teaching or suggestion to one skilled in the art of all the claimed limitations of the invention to which the art is applied. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is respectfully submitted that, at minimum, the prior art fails to teach or suggest to one skilled in the art all of the limitations of the present claims, i.e., there has been no showing that the deficiencies of Womelsdorf as detailed in the discussion above have been overcome by Womelsdorf alone or in combination with Takeda.

As best understood Takeda appears to be related to a method for the production of zinc oxide particle compositions, including zinc oxide particles, zinc oxide polymer

particles, and inorganic compound particles having zinc oxide crystal surface deposits. Broadly, it appears the method involves the heating of a zinc source, a carboxyl-containing compound, and an alcohol. While Takeda relates to ZnO particles, Takeda clearly does not teach or suggest, *inter alia*, the claimed embodiment's water- and halogen-free ZnO amino-alcohol dispersions. Thus, the presently claimed invention is not rendered obvious over Womelsdorf in view of Takeda under the standards articulated above and required to maintain an obviousness rejection. The obviousness rejections should, therefore, be immediately withdrawn and Applicants respectfully request the same.

While unnecessary for the withdrawal of the present rejections, the Applicants would also like to briefly note their traversal of the establishment of the remaining elements required for a *prima facie* case of obviousness. Applicants submit that the references cited fail to provide the necessary motivation and expectation of success to one skilled in art at the time of the invention's creation. As demonstrated by the teachings of Womelsdorf, for example, it is clear that non-water based ZnO dispersions, as presently claimed, were not known in the art and, moreover, there is no basis for finding an expectation by one skilled in the art that such dispersions could be successfully created. Thus additional alternative grounds for the withdrawal of the present obviousness rejections exist as well.

By virtue of dependence from what are believed to be allowable independent claims 1 and 3, as well as the aforementioned reasons, it is respectfully submitted that claims 2, 4, and 5 are also presently allowable.

The "prior art made of record" has been reviewed. Applicants acknowledge that such prior art was not deemed by the Office to be sufficiently relevant as to have been applied against the claims of the instant application. To the extent that the Office may apply such prior art against the claims in the future, Applicants will be fully prepared to respond thereto.

In summary, it is respectfully submitted that the instant application, including Claims 1-5, is presently in condition for allowance. Notice to the effect is earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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